REQUEST FOR QUALIFICATIONS

FOR THE

RESIDENTIAL BUILDING ENERGY SCIENCE TECHNICAL SUPPORT

RFQ #400-10-402

www.energy.ca.gov/contracts

State of California
California Energy Commission

March 2011

Table of Contents

Exhibit

A	California Simulation Engine Technical Documentation

Attachments

1	Contractor Status Form
2	Darfur Contracting Act
3.1	Disabled Veteran Business Enterprise Certification Application Instructions (informational only)
3.2	Disabled Veteran Business Enterprise Program Requirements
3.3	DVBE Std 843
3.4	Bidder Declaration form GSPD-05-105
4	Contractor Certification Clauses
5	Client References
6	Standard Agreement Example (informational, not required in SOQ)

I. INTRODUCTION

BACKGROUND SUMMARY

The architectural and engineering professional services technical support selected through this RFQ will provide the Energy Commission access to residential building energy science experts that are not available within state service. These professionals will work under the direction of the Energy Commission to complete engineering and econometric analyses as well as the analysis tool development that is needed to support the advancement of residential building energy performance that is the objective of the state's Building Energy Efficiency Standards (Standards). This RFQ is also soliciting for engineering technical support for photovoltaic energy generation modeling used in the Energy Commission's High Performance Buildings and Renewable Energy programs. The majority of technical services currently needed by the Energy Commission revolve around the design, specification and development of building energy analysis tools needed to support the implementation of the Standards. The Energy Commission has a statutory obligation to provide the building industry with these software tools for their use in complying with the Standards. The Energy Commission needs the technical support of building science professionals for every stage of designing, specifying, developing and testing these analysis tools. Software developers without building science knowledge are not qualified for this work. The Energy Commission's evaluation criteria require engineers, with the support of software developers, to complete these analysis tool development projects. The building energy modeling tools developed in the Agreement resulting from this RFQ will not reside on state of California computers or servers and will not require Energy Commission information technology staff support.

PURPOSE OF THIS RFQ

The purpose of this Request for Qualifications (RFQ) is to solicit for and contract with a consultant team of qualified staff and subcontractors to provide architectural and engineering technical support to the Energy Commission in multiple areas of residential building energy science to support the advancement of residential building energy efficiency in California's newly constructed homes. Building energy simulation modeling, model validation, and developing software to prove compliance with the Residential Building Energy Efficiency Standards (Standards) are principal activities to be performed by the consultant team selected from this RFQ.

The Energy Commission is seeking a consultant team with knowledge and experience concerning:

- Professional engineering and architectural design and construction of residential buildings;
- Development of building energy efficiency standards that govern the professional design and construction of residential buildings;
- Developing building energy computer models and software that implements a set of rules to govern the modeling of residential building designs;
- Each Scope of Work task;

I. Introduction, continued

- Organizing and managing a team of technical experts to effectively complete Scope of Work tasks and deliverables in a timely manner;
- Recruiting and managing specific subcontractors with expertise in residential building science, technology specialties, or construction practices in addition to the original list of subcontractors included in the proposal.

The Energy Commission is seeking one Prime Contractor representing a team of companies. A single Firm, and not a group of representatives from different companies, must submit a Statement of Qualifications (SOQ) as the prime contractor. The prime contractor will be responsible for all contract administrative duties, directing team members in all contract provisions, and also participating in technical work assignments. The term "Firm" is used in this RFQ to refer to the company or entity submitting a SOQ.

The contract awarded as a result of this solicitation will be a technical support contract. The selected prime contractor team will be assigned work via specific work authorizations as the need arises.

KEY ACTIVITIES AND DATES

Key activities and times for RFQ are presented below. This is a tentative schedule; please call the Contracts Office to confirm dates.

Activities	Tentative Dates
RFQ release	March 4, 2011
Pre-Bid Conference	March 24, 2011
Written Question Submittal Deadline by 5:00 p.m.	March 24, 2011
Distribute Questions / Answers and Addenda (if any)	April 1, 2011
Deadline to submit SOQ by 3:00 p.m.	**April 18, 2011**
SOQ Discussions with Firms	April 26, 2011
Notice of Selection	April 27, 2011
Cost Negotiations	April 27 - May 5, 2011
Notice of Proposed Award	May 6, 2011
Energy Commission Business Meeting	June 15, 2011
Contract Start Date	June 30, 2011
Contract End Date	March 31, 2014

AVAILABLE FUNDING

There is a maximum of up to $1,200,000 available for the contract resulting from this RFQ. This is an hourly rate plus cost reimbursement contract with a ceiling on the total contract amount.

I. Introduction, continued

Of this amount $224,000 is immediately available. The remaining balance of $ 976,000 from fiscal years (FY) 2011/12 and 2012/13 may be available contingent upon approval of the Energy Commission's 2011/12 and 2012/13 Budgets. Funding shall be subject to the appropriation and availability for that purpose in the 2011/12 and 2012/13 Governor's Budget. In the event funds are not available, the Commission shall have no further liability with regard to the agreement.

The Energy Commission reserves the right to reduce the contract amount to an amount deemed appropriate in the event the budgeted funds do not provide full funding of Energy Commission contracts. In this event, the Contractor and the Energy Commission Contract Manager shall meet and reach agreement on a reduced scope of work commensurate with the level of available funding.

RETAINER CONTRACT

Any contract awarded as a result of this RFQ will be a no-fee "retainer" contract. The selected contractor will be held on retainer and will be assigned work via work authorizations. Work authorizations will be assigned as the need arises under the contract's scope of work. The Energy Commission makes no guarantee that any or all of the funds will be assigned in any given year.

PRE-BID CONFERENCE

There will be one Pre-Bid Conference; participation in this meeting is optional but encouraged. The Pre-Bid Conference will be held at the date, time and location listed below. Please call (916) 654-4392 or refer to the Energy Commission's website at www.energy.ca.gov/contracts to confirm the date and time.

March 24, 2011 at 10:00 a.m.
California Energy Commission
Hearing Room B
1516 9th Street
Sacramento, CA 95814
Telephone: (916) 654-4392

Participation through WebEx, the Energy Commission's on-line meeting service:

COMPUTER LOGON WITH A DIRECT PHONE NUMBER:

* Please go to https://energy.webex.com and enter the unique meeting number 921 266 170
* When prompted, enter your information and the following meeting password: cec@1516

* After you login, a prompt will appear on-screen for you to provide your phone number. In the Number box, type your area code and phone number and click OK to receive a

call back on your phone for the audio of the meeting. International callers can use the "Country/Region" button to help make their connection.

COMPUTER LOGON FOR CALLERS WITH AN EXTENSION PHONE NUMBER, ETC.:

* Please go to https://energy.webex.com and enter the unique meeting number: 921 266 170

* When prompted, enter your information and the following meeting password: cec@1516

* After you login, a prompt will ask for your phone number. CLICK CANCEL.

* Instead call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number which is listed in the top left area of your screen after you login. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

TELEPHONE ONLY (NO COMPUTER ACCESS):

* Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from: https://energy.webex.com/energy/globalcallin.php

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

QUESTIONS

During the RFQ process, questions of clarification about this RFQ must be directed to the Contracts Officer listed in the following section. You may ask questions at the Pre-Bid Conference, and you may submit written questions via mail, electronic mail, and by FAX. However, all questions must be received by 5:00 pm on the day of the Pre-Bid Conference.

Approximately one week after the Pre-Bid Conference, question and answer sets will be mailed to all parties who requested a copy of this RFQ from the Commission Contracts Office and to all who attended the Pre-Bid conference and provided their contact information on the sign-in sheet. The questions and answers will also be posted on the Commission's website at: http://www.energy.ca.gov/contracts/index.html.

Any verbal communication with a Commission employee concerning this RFQ is not binding on the State and shall in no way alter a specification, term, or condition of the RFQ. Therefore, all communication should be directed in writing to the Energy Commission's Contract Officer assigned to the RFQ.

I. Introduction, continued

CONTACT INFORMATION

Angela Hockaday, Contracts Officer
California Energy Commission
1516 Ninth Street, MS-18
Sacramento, California 95814
Telephone: (916) 654-5186
FAX: (916) 654-4423
E-mail: ahockada@energy.state.ca.us

RESPONSES TO THIS RFQ

Responses to this solicitation will be in the form of a Statement of Qualifications (SOQ) according to the format described in this RFQ. The SOQ shall document the Firm's qualifications to perform the tasks described in the Scope of Work found in this RFQ.

REFERENCE DOCUMENTS

Firms responding to this RFQ may want to familiarize themselves with the following documents:

2008 Residential Alternative Calculation Method (ACM) Approval Manual
Website: http://www.energy.ca.gov/2008publications/CEC-400-2008-002/CEC-400-2008-002-CMF.PDF

California Simulation Engine Technical Documentation:
Exhibit A (attached)

I. Introduction, continued

KEY WORDS AND DEFINITIONS

Important definitions for this RFQ are presented below:

Word/Term	Definition
ACM	Alternative Calculation Method – also called performance standards compliance software
API	Application Program Interface - a particular set of rules and specifications that a software program can follow to access and make use of the services and resources provided by another particular software program that implements that API. It serves as an interface between different software programs and facilitates their interaction, similar to the way the user interface facilitates interaction between humans and computers.
Firm	A respondent to this RFQ
CASE	Codes And Standards Enhancement
CCM	Commission Contract Manager
CECPV	California Energy Commission Photovoltaic Model
CSE	California Simulation Engine for residential building energy analysis
CUAC	California Utility Allowance Calculator
DVBE	Disabled Veteran Business Enterprise
Energy Commission	California Energy Commission
HERS Data Registry	The electronic database maintained by Home Energy Rating System providers that holds project-specific Standards compliance documentation
HVAC	Heating, Ventilation and Air Conditioning
KSA	Knowledge, Skills and Abilities
PAC	Program Advisory Committee
Plug-in	A set of software components that adds specific capabilities to a larger software application
Proposal	Formal written response to this RFQ from Firm
RFQ	Request for Qualifications, this entire document
Standards	California Building Energy Efficiency Standards
State	State of California
WAA	Warren-Alquist Act

II. SCOPE OF WORK

ABOUT THIS SECTION

In this section, the Energy Commission describes the tasks the Firm (referred to as "Contractor" in the Scope of Work) will be asked to perform under the direction of the Energy Commission Contract Manager (CCM). This section also describes the work assignment process, deliverables, and due dates.

BACKGROUND

This architectural and engineering professional services technical support contract will provide the Energy Commission access to residential building energy science experts that are not available within state service. These professionals will work under the direction of the Energy Commission to complete engineering and econometric analyses as well as the analysis tool development that is needed to support the advancement of residential building energy performance that is the objective of the state's Building Energy Efficiency Standards (Standards). This RFQ is also soliciting for engineering technical support for photovoltaic energy generation modeling used in the Energy Commission's High Performance Buildings and Renewable Energy programs. The majority of technical services currently needed by the Energy Commission revolve around the design, specification and development of building energy analysis tools needed to support the implementation of the Standards. The Energy Commission has a statutory obligation to provide the building industry with these software tools for their use in complying with the Standards. The Energy Commission needs the technical support of building science professionals for every stage of designing, specifying, developing and testing these analysis tools. Software developers without building science knowledge are not qualified for this work. The Energy Commission's evaluation criteria require engineers, with the support of software developers, to complete these analysis tool development projects.

The Energy Commission intends to use this building science technical support agreement to begin the process of collaboratively developing, testing, documenting, and supporting open source building energy modeling software and other building energy analysis tools used for Standards development, Standards compliance and other energy efficiency and clean energy public policy implementation. The Contractor will establish a Program Advisory Committee to promote participation in these collaborative development efforts. It is the intent of the Energy Commission to migrate these building energy modeling and analysis tools into an open source forum, therefore, unless otherwise specified, the software developed in this Agreement will be made available by the Contractor and their subcontractors under an open source license recommended by the PAC and approved by CCM.

For the 2013 Residential Standards building energy modeling work, California's investor-owned utilities collaborated with the Energy Commission to co-fund the development of the California Simulation Engine (CSE). CSE is a set of building science algorithms currently available in open source software. The 2013 Standards related

tasks to be completed in this Agreement extend the functionality of CSE and focus on the Standards development and compliance processes requiring building energy modeling software, as explained below.

Residential Standards ACM Reference Method

The Commission must establish a reference method for modeling the energy-related features of proposed building designs and standard building designs as specified in the performance-based Standards. This reference method establishes the engineering basis for estimating the hourly energy use of residential buildings across California's climate regions. The Energy Commission uses the reference method to determine the energy cost savings expected from updates to the Standards. The reference method is also necessary because part of the private vendor ACM software certification process requires the Commission to compare results from the private vendor submitted software to the results of the Commission's reference method.

For the 2013 Residential Standards, the Energy Commission will use CSE for energy analysis and add a software layer that implements the performance standard rules. The specification of this "compliance rules layer" will require building science experts to complete varied technical analyses of residential building characteristics and energy use data, building material, building product and efficiency technology performance data, as well as California weather data and time-dependent energy cost data to determine the most appropriate building energy modeling requirements to include in the reference method. The development of this 2013 Residential Standards ACM Reference Method will apply the performance standards compliance rules to generate a proposed building design and a standard building design, compute annual energy budgets for each and produce comparative results.

Residential Standards Compliance Software

This Agreement will fund the modification of the 2013 Residential Standards ACM Reference Method to create a software application plug-in using an API that accepts a residential building description and returns performance standards compliance results. This work will require the engineering specification of the physical and thermal properties of residential building components necessary for the building energy modeling requirements of the 2013 Residential Standards ACM Reference Method. This work will also require the specification of the building energy performance results to be included in the Standards compliance documentation. This work includes reviewing existing residential building thermal model data exchange schemas, selecting the most appropriate schema, then making the necessary extensions for use in the electronic transfer of energy related building characteristics and performance data. The Energy Commission calls this application plug-in a "compliance engine" because it will combine the performance-based Standards compliance rules with energy simulation algorithms into a software application for use in energy modeling tools to check compliance with California's residential performance standards. The performance compliance rules developed for the 2013 Residential Standards ACM Reference Method will be encrypted or otherwise protected from alteration in this compliance engine plug-in. This Agreement will also fund 2013 Residential Standards Compliance Software by developing a minimal user interface to the compliance engine, so that the software can be adequately tested and serve as publicly available compliance software.

II. Scope of Work, continued

Additional Building Science Tasks in this SOW

In addition to the 2013 Residential Performance Standards compliance tools described above, this Agreement will fund professional services technical support for simplified Standards compliance procedures, an electronic compliance data repository, photovoltaic model validation and electricity generation calculation tools, and affordable housing energy efficiency tax incentive calculation procedures. These tasks will require building science professionals to develop, test, pilot and improve methods to evaluate the technical performance of a large variety of residential building related energy use and energy generation technologies in support of several of the Energy Commission's clean energy policy programs.

WORK AUTHORIZATIONS

This is a "Work Authorization" Contract and no work shall be undertaken unless authorized by the Energy Commission through a specific written document called a Work Authorization (WA). WAs specifying the tasks, deliverables and costs shall be used for all work assignments. WAs for technical tasks will be made on an as-needed basis. The specific task(s) and the level of effort for each task will vary from project to project. A fully executed copy of the WA must be obtained from the CCM before work can begin on any WA. Workflow will depend on demand for service. Demand is uncertain and, therefore, there will be no guarantee of work for the prime contractor or any subcontractor. Exhibit A of this RFQ is a sample of a work authorization.

The Commission Contract Manager will prepare and issue the written work authorizations and may set a maximum price, budget, and schedule for the work to be performed. The Commission Contract Manager will work, in consultation with the Contractor, to assign work to either the Contractor or a subcontractor. The Energy Commission reserves the right to direct the Contractor to increase expertise on any particular task by soliciting for additional subcontractors.

Work Guarantee. The Energy Commission does not guarantee any minimum or maximum amount of work under the Agreement.

The major categories of work in this Agreement are divided into the following tasks:

Task #	Task
1	Contract Management
2	Establish PAC
3	Conduct PAC Meetings
4	Administer Software Development and Distribution
5	2013 Residential Standards ACM Reference Method
6	Computer Generated Residential Standards Compliance Forms

7	2013 Residential Standards Compliance Engine
8	2013 Residential Standards Compliance Engine Pilots in Compliance Software
9	2013 Residential Standards Compliance Software
10	2013 Residential Standards Simple Compliance Tool
11	Photovoltaic Model and Software Development
12	California Utility Allowance Calculator
13	2013 Standards Compliance Data Repository
14	Contingencies and Additional Topic Areas

TASK 1: CONTRACT MANAGEMENT

The Contractor's responsibilities under this task include, but are not limited to the following:

TASK 1.1 - WORK AUTHORIZATIONS

The Contractor shall:

- Administer Work Authorizations. At the direction of the CCM, and in conjunction with the CCM prepare work authorizations which define the scope of work, the schedule of deliverables and the project budget. Per Exhibit E, in the Terms and Conditions of the Agreement each WA shall include but not be limited to the following:
    1. Contract Number
    2. WA Number
    3. WA Title
    4. Effective Date
    5. End Date
    6. Objective or goal of the WA
    7. Detailed scope of work and tasks
    8. What task the WA falls within in the Contract
    9. Schedule/Due dates and Deliverables
    10. Contact Information
    11. Contractor and Subcontractor personnel who will perform the work
    12. Identification of DVBE
    13. Detailed Budget
        - Hours and fully loaded hourly rates by person or job classification, as allowed by Contract budget
        - Travel and per diem, as allowed by Contract budget
        - Other direct costs, as allowed by Contract budget (i.e. postage)
    14. Other items as required by CCM

- Monitor and track each WA and the overall contract. Ascertain the fiscal status of each WA and the overall contract, prevent accumulation of cost overruns, determine if each WA is on schedule, determine that all deliverables have been submitted and accepted and track the start, progress and closure for each WA.

TASK 1.2 - KICKOFF MEETING

The Contractor shall:

- Participate in a "kick-off" meeting with the CCM, Contracts Officer, and the Accounting Office. The Contractor shall include at a minimum their Project Manager, Contract Administrator, and Accounting Officer. The administrative and technical aspects of this contract will be discussed.

TASK 1.3 - INVOICES

The Contractor shall:

- Prepare and submit an invoice for all reimbursable expenses incurred performing work under this contract in compliance with the Terms and Conditions of the contract. An advance copy of the invoice shall be sent to the Commission Contract Manager to ensure that all records are included and the invoice is for authorized work. Official invoices must be submitted to the Energy Commission's Accounting Office. The Commission Contract Manager will specify the invoice format.

TASK 1.4 - SUBCONTRACTORS

In the event Subcontractors are part of the Contractor's SOQ the Contractor shall:

- Manage and coordinate subcontractor activities. The Contractor is responsible for the quality of all subcontractor work. The Energy Commission will assign all work to the Contractor and the Contractor shall be responsible for the Subcontractor(s). If the Contractor needs to replace a subcontractor or decides to add new subcontractors, they shall 1) comply with the terms and conditions of the contract, and 2) notify the CCM who will follow the Energy Commission's process for adding or replacing subcontractors.

On an ongoing basis the Contractor shall perform the following tasks:

- Prepare and issue contract agreements with subcontractors that include all required provisions contained in the Agreement between the Energy Commission and the Contractor;
- Respond in a timely fashion to information requests or direction from the Commission Contract Manager;

- Coordinate availability of subcontractors to meet needs of the Energy Commission staff;
- Solicit for additional technical expertise upon direction by the Commission Contract Manager;
- Require subcontractors to provide invoices which correctly identify personnel, actual hourly rates and direct expenses charged to each work authorization and provide back-up documentation for expenses; and
- Maintain a current Agreement spreadsheet capable of tracking Contractor and subcontractor work activity, Contractor and subcontractor invoice activity, and the status of work authorizations.

TASK 1.5 - Monthly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of the project.

The Contractor shall:

Prepare monthly progress reports which summarize all contract activities conducted by the Contractor and their subcontractors for the reporting period, including an assessment of the ability to complete the contract within the current budget and any anticipated cost overruns. This monthly progress report shall include a summary of Agreement expenditures to date.

- Each progress report is due to the CCM within 15 working days after the end of the reporting period. The Commission Contract Manager will specify the report format and the number of copies to be submitted. All progress reports should coincide with the invoice period.

Deliverables:

- Monthly Progress Reports

TASK 1.6 – Program Meetings and Briefings

At the request of the Energy Commission's Contract Manager, the Contractor and subcontractors shall be available for meetings or to provide written and/or verbal program briefings to the Energy Commission's staff or others. Some meetings will be conducted in person, by phone and the internet, as determined by the Commission Contract Manager. The cost of meetings will be included in each work authorization.

TASK 2: ESTABLISH PAC

The goal of this task is to create a Program Advisory Committee (PAC) for this Agreement. The purpose of the PAC is to provide guidance, input, review and comment on deliverables prepared under this Agreement.

The PAC should be composed of building industry representatives and public goods program managers interested in collaboratively developing software tools and data that facilitate the energy efficient design, construction, operation and renovation of residential buildings. If possible, the PAC should have members experienced with open source licensing of building modeling software. The number of professionals on the PAC can vary depending on potential interest and time availability. The Contractor's Project Manager and the Commission Contract Manager shall act as co-chairs of the PAC. The exact composition of the PAC may change as the need warrants. PAC members serve at the discretion of the Commission Contract Manager.

The PAC may be composed of qualified professionals spanning the following types of disciplines:

- Building industry experts knowledgeable about building energy simulation and/or mechanical system design and operations,
- Members of the trades who will apply the results of the project (e.g., designers, engineers, architects, contractors, and trade representatives),
- Software product developers relevant to project subject matter,
- Professionals with open source software management experience,
- U.S. Department of Energy Building Technologies Group building simulation project manager,
- California utility representatives with program responsibilities in areas requiring building energy simulation tools.

The purpose of the PAC is to:

- Review deliverables and provide specific suggestions and recommendations for needed adjustments, refinements, or enhancement of the deliverables,
- Provide input on the process of migrating compliance software and building energy modeling tools to an open source forum and the associated computer hardware needed to house the open source software applications and data,
- Provide recommendations regarding information dissemination, market pathways and/or further collaborative opportunities relevant to the building energy modeling procedures and software tools developed in this Agreement.

The Contractor shall:

- Prepare a draft list of potential PAC members that includes name, company, physical and electronic address, and phone number and submit it to the Commission Contract Manager before work begins on the remainder of Agreement tasks.
- Recruit PAC members and ensure that each individual understands the member obligations described above, as well as the meeting schedule outlined in Task 3.
- Prepare the final list of PAC members.
- Submit letters of acceptance or other comparable documentation of commitment for each PAC member.

Deliverables:

- Draft List of PAC Members
- Final List of PAC Members
- Letters of acceptance, or other comparable documentation of commitment for each PAC Member

TASK 3: PAC MEETINGS

The goal of this task is for the PAC to provide strategic guidance to the work conducted under this Agreement by participating in regular meetings or teleconferences.

The Contractor shall:

- Discuss the PAC meeting schedule with the Commission Contract Manager. The number of face-to-face meetings and teleconferences and the location of PAC meetings shall be determined in consultation with the Commission Contract Manager. This draft schedule shall be presented to the PAC members during recruiting and finalized at the first PAC meeting.
- Organize and lead PAC meetings in accordance with the schedule. Changes to the schedule must be pre-approved in writing by the Commission Contract Manager.
- Prepare PAC meeting agenda(s) with back-up materials for agenda items.
- Prepare PAC meeting summaries, including recommended resolution of major PAC issues.

Deliverables:

- Draft PAC Meeting Schedule
- Final PAC Meeting Schedule
- PAC Meeting Agenda(s) with Back-up Materials for Agenda Items
- Written PAC meeting summaries, including recommended resolution of major PAC issues

TASK 4: ADMINISTER SOFTWARE DEVELOPMENT AND DISTRIBUTION

The goal of this task is to complete the necessary work to ensure that all software developed under this Agreement is complete, appropriately tested, debugged, documented, then licensed to and/or made available for use by the public consistent with Commission Contract Manager's written direction.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Propose, and after obtaining written approval of the CCM, implement the Residential Building Science Software Development Plan detailing the steps and

process taken to integrate building engineering science, formulas and data into each software product of this Agreement.

- Propose, and after obtaining written approval of CCM, implement a quality assurance program. The CCM approved software documentation, testing and acceptance criteria as well as other appropriate software quality assurance procedures shall be documented in a Residential Building Science Software Quality Assurance Plan.
- Prepare a Residential Building Science Software Development Report that documents how the work included in this Agreement was completed following the CCM approved Residential Building Science Software Development Plan and Residential Standards Software Quality Assurance Plan. At a minimum, the report shall summarize how each of the requirements and procedures in these two software development plans were implemented during the development of the software specified in this SOW, summarizing the significant issues that arose and how they were addressed.
- Propose, and after obtaining written approval of CCM, implement licensing procedures that allow access to software and data developed under this Agreement. A report shall be prepared detailing the CCM approved licensing procedures and shall at a minimum report on the costs of establishing and maintaining the software in an open source setting, how to encrypt or otherwise protect specific computer code and data (such as the 2013 Standards Compliance Engine Plug-in) security issues and backup issues and the requirements for migrating the software if necessary in the future. The report shall also document the licensing procedures for each of the software products developed under this Agreement. The report shall be called the Residential Standards Software Licensing Report.

Deliverables:

- Residential Building Science Software Development Plan
- Residential Building Science Software Quality Assurance Plan
- Residential Building Science Software Development Report
- Residential Building Science Software Licensing Report

TASK 5: 2013 RESIDENTIAL STANDARDS ACM REFERENCE METHOD

The goal of this task is to translate building energy performance data and energy related building operational characteristics into software that applies the performance standards requirements to residential building designs, calculates annual energy budgets and provides comparative results. This software will use CSE to compute hourly building energy use and will be the reference method that all ACM computer programs will be compared to as part of the Energy Commission's compliance software certification for the 2013 Residential Standards.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential Standards ACM Reference Method software. The performance standards requirements for modeling the standard and proposed building designs, as specified in the 2013 Residential ACM Manual (to be provided to the Contractor by the CCM), shall be implemented as a separate software layer and not be inserted into the CSE building simulation algorithms. The reference method software shall include a user interface sufficient to adequately test the software and produce reference results that other compliance software products can be compared to,
- Work with CCM and PAC to develop and document software specifications for the 2013 Residential Standards ACM Reference Method software that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- 2013 Residential Standards ACM Reference Method Functional Requirements
- 2013 Residential Standards ACM Reference Method Software Specifications
- 2013 Residential Standards ACM Reference Method Software
- 2013 Residential Standards ACM Reference Method Software Documentation

TASK 6: COMPUTER GENERATED RESIDENTIAL STANDARDS COMPLIANCE FORMS

There are two separate goals for this task. The first goal is to develop web-based software to facilitate Standards compliance form generation. This will require expert knowledge of the Residential Standards compliance documentation requirements and a thorough understanding of how to compute the specific building energy performance metrics to be included in the 2013 Residential Standards compliance documentation. The second goal is to leverage this activity to meet the compliance reporting needs of the 2013 Residential Standards Compliance Engine developed in Task 7.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential and Nonresidential Standards Compliance Form Generator,
- Work with CCM and PAC to develop and document software specifications for the 2013 Residential and Nonresidential Standards Compliance Form Generator that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task,

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential Standards Compliance Forms Plug-in. Leverage all appropriate work from the 2013 Residential Standards Compliance Form Generator project completed in this task to meet the form generation needs of the 2013 Residential Standards Compliance Engine developed in Task 7,
- Work with CCM and PAC to develop and document software specifications for a 2013 Residential Standards Compliance Forms Plug-in that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- 2013 Residential Standards Compliance Form Generator

  Functional Requirements
- 2013 Residential Standards Compliance Form Generator

  Software Specifications
- 2013 Residential Standards Compliance Form Generator
- 2013 Residential Standards Compliance Form Generator Software Documentation
- 2013 Residential Standards Compliance Form Plug-in Functional Requirements
- 2013 Residential Standards Compliance Form Plug-in Software Specifications
- 2013 Residential Standards Compliance Forms Plug-in
- 2013 Residential Standards Compliance Form Plug-in Software Documentation

TASK 7: 2013 RESIDENTIAL STANDARDS COMPLIANCE ENGINE

The goal of this task is to modify the 2013 Residential Standards ACM Reference Method Software developed in Task 5 to produce a software application ("compliance engine") that implements the 2013 Residential Performance Standards and can be incorporated into other building energy design software tools. This task will require the specification of the physical and thermal properties of residential building components that must be provided in an electronic data exchange procedure to meet the building energy modeling requirements of the 2013 Residential Standards ACM Reference Method. This work will also require the specification of the building energy performance results to be included in the compliance engine software output data exchange procedures. The compliance engine will likely be licensed and available to building energy design application software vendors to implement 2013 Residential Standards compliance checking and documentation. The compliance engine shall be designed such that it can be protected from being modified if used in a vendor's compliance software tool. The reason is that when the Energy Commission certifies compliance software, this component must be unalterable in each vendor's software to maintain consistency of results and certification status.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential Standards ACM Compliance Engine. This activity shall include a review of all applicable data exchange schema, selection of the most appropriate schema and extending it as necessary for use in import of building design data and export of building energy modeling results. The functional requirements shall also include the incorporation of the 2013 Residential Standards Compliance Forms Plug-in developed in Task 6,
- Work with the CCM and the PAC to develop and document software specifications for the 2013 Residential Standards ACM Compliance Engine that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.
- Complete the software architecture necessary to compile and distribute the 2013 Residential Standards ACM Compliance Engine as an application plug-in.
- Develop software to test, debug and demonstrate the functionality of the 2013 Residential Standards ACM Compliance Engine.

Deliverables:

- 2013 Residential Standards ACM Compliance Engine Functional Requirements
- 2013 Residential Standards ACM Compliance Engine Software Specifications
- 2013 Residential Standards ACM Compliance Engine Plug-in
- 2013 Residential Standards ACM Compliance Engine Software Documentation
- 2013 Residential Standards ACM Compliance Engine Demonstration Software

TASK 8: 2013 RESIDENTIAL STANDARDS COMPLIANCE ENGINE PILOTS IN COMPLIANCE SOFTWARE

The goal of this task is to pilot the use of the 2013 Residential Standards Compliance Engine in building energy design software tools used by the residential building design industry. These pilots will provide the Energy Commission with an understanding of the issues and opportunities for private vendor energy analysis tools to incorporate the compliance engine into their software products. This work will include engineering reviews of the standard and proposed building designs modeled by the energy analysis tools participating in this compliance engine pilot, to determine if the performance standard requirements are being implemented appropriately and producing the correct results. The building energy design software used in these pilots shall have either previously been certified by the Energy Commission as compliance software or have the necessary functionality to be considered for certification by the Energy Commission as compliance software in the future. There is no connection between the work in this task and any future Energy Commission activity related to the certification of Residential Standards compliance software.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to determine the appropriate Standards software integration pilots to meet the goals of this task. Work with the CCM and the PAC to establish the energy analysis software qualifications for participation in this task activity,
- The Energy Commission expects to pilot the 2013 Residential Standards Compliance Engine with qualified software vendors. If technical staff from a qualified software vendor are not already included on the Contractor team, the Contractor shall work with the Energy Commission to recruit and add technical support subcontractors to this Agreement to complete the compliance engine pilots with qualified software vendors. There must be at least one compliance engine pilot to satisfy the requirements of this task,
- Work with the CCM and the PAC to develop a 2013 Residential Standards Compliance Engine Demonstration Plan that explains the scope, process, timing, energy analysis software qualifications, software development efforts and evaluation metrics for the software pilots identified in this task,
- Complete the software development efforts required to demonstrate the functionality of the 2013 Residential Standards Compliance Engine in building energy design software tools chosen for participation in this task's pilots,
- Complete the piloting activities delineated in the 2013 Residential Standards Compliance Engine Demonstration Plan,
- Work with the CCM and the PAC to document the results of the software pilots in a 2013 Residential Standards Compliance Engine Demonstration Task Report.

Deliverables:

- 2013 Residential Standards Compliance Engine Demonstration Plan
- 2013 Residential Standards Compliance Engine Demonstrations
- 2013 Residential Standards Compliance Engine Demonstration Task Report

TASK 9: 2013 RESIDENTIAL STANDARDS COMPLIANCE SOFTWARE

The goal of this task is to develop a user interface for the 2013 Residential Standards ACM compliance engine developed in Task 5 that results in software that can be certified by the Energy Commission as 2013 Residential Standards compliance software. This work includes specifying a method for the software user to enter the required building energy characteristics for use in the compliance analyses and also specifying a method to return the compliance results to the user. The Energy Commission anticipates that the 2013 Residential Standards ACM Compliance Engine Demonstration Software developed in Task 6 will be the best starting point for the software development needed for this task.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential Standards compliance software,
- Work with the CCM and the PAC to develop and document software specifications for the 2013 Residential Standards compliance software that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- 2013 Residential Standards Compliance Software Functional Requirements
- 2013 Residential Standards Compliance Software Specifications
- 2013 Residential Standards Compliance Software
- 2013 Residential Standards Compliance Software Documentation

TASK 10: 2013 RESIDENTIAL STANDARDS SIMPLE COMPLIANCE TOOL

The goal of this task is to develop a simplified software tool that can be used to prove compliance with the Standards for design projects with limited scope (e.g. envelope only compliance) and/or specifically for compliance with addition and alteration requirements. This work will include building energy modeling and parametric analyses to derive a simplified method for performance Standards compliance that maintains the building science integrity of the detailed performance standards compliance approach. The software to be developed in this task will be certified by the Energy Commission as 2013 Residential Standards compliance software applicable only for a limited type of building energy standards compliance project. This would allow building owners and/or their design consultants to use a simpler compliance approach that provides more options than the prescriptive standard but does not require the time and complexity of performance-based Standards compliance. The Energy Commission anticipates that the 2013 Residential Standards Compliance Software developed in Task 9 will be the best starting point for the software development needed for this task.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the 2013 Residential Standards Simple Compliance Tool,
- Work with the CCM and the PAC to develop and document software specifications for the 2013 Residential Standards Simple Compliance Tool that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- 2013 Residential Standards Simple Compliance Tool Functional Requirements

- 2013 Residential Standards Simple Compliance Tool Software Specifications
- 2013 Residential Standards Simple Compliance Tool
- 2013 Residential Standards Simple Compliance Tool Software Documentation

TASK 11: PHOTOVOLTAIC MODEL AND SOFTWARE DEVELOPMENT

The goal of this task is to validate and improve the existing California Energy Commission Photovoltaic (CECPV) model to support the use of the engineering algorithms as an incentive calculator for the New Solar Homes Partnership program. This work will include field data analysis of PV system performance, reviewing the estimates of PV system performance generated from the CECPV model, and applying best practice methods for completing PV system performance model validation. Another goal of this task is to include the validated and improved CECPV model into a simple analysis tool that can be used by all interested parties to calculate public goods incentives for specific PV installation projects.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Process, review and finalize any measured field data sets provided by the CCM for the validation work to be conducted in this task,
- Work with the CCM and the PAC to validate the existing California CECPV model using methods from “A Standardized Approach to PV System Performance Model Validation”1,
- Work with the CCM and the PAC to develop and implement modifications to CECPV based on the results of the model validation completed in this task,
- Validate the modified California Energy Commission Photovoltaic (CECPV) model using methods from “A Standardized Approach to PV System Performance Model Validation”,
- Propose to the CCM and the PAC, and upon approval implement additional improvements to the CECPV model based on results of validation work,
- Work with the CCM and the PAC to develop the functional requirements for the CECPV Software, which will incorporate the final version of the CECPV model,
- Work with the CCM and the PAC to develop and document software specifications for the CECPV Software that satisfy the functional requirements developed in this task,

[1] Stein, J.S.; Cameron, C.P.; Bourne, B.; Kimber, A.; Posbic, J.; Jester, T.; , "A standardized approach to PV system performance model validation," Photovoltaic Specialists Conference (PVSC), 2010 35th IEEE , vol., no., pp.001079-001084, 20-25 June 2010

doi: 10.1109/PVSC.2010.5614696

URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5614696&isnumber=5614036

- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- Existing CECPV Model Validation Report
- Modified CECPV Model Validation Report
- Final CECPV Model
- CECPV Software Functional Requirements
- CECPV Software Specifications
- CECPV Software
- CECPV Software Documentation

TASK 12: CALIFORNIA UTILITY ALLOWANCE CALCULATOR

The goal of this task is to identify issues, provide engineering review and analysis, then develop and implement recommendations for improvements to the Energy Commission's California Utility Allowance Calculator (CUAC). The Energy Commission anticipates that the current CUAC will need modifications based on use by the affordable housing financing industry and the goals of the Energy Commission to increase the energy efficiency of California's affordable housing.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for updates to the CUAC,
- Work with the CCM and the PAC to develop and document software specifications for updates to the CUAC that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- Functional Requirements for updates to the CUAC
- Software Specifications for updates to the CUAC
- Updated CUAC Software
- Updated CUAC Software Documentation

TASK 13: 2013 STANDARDS COMPLIANCE DATA REPOSITORY

The goal of this task is to establish an electronic database of Standards compliance project results, called the Standards Compliance Data Repository (Repository). This work will include reviewing Standards compliance documentation, the current HERS

Data Registry functions and database architectures, and existing data exchange schema used to communicate Standards-related building energy performance. This work will include developing specifications for the Repository to meet the Energy Commission's need to independently review a sample of Standards compliance projects for accuracy and completeness.

The Contractor shall complete the activities necessary to complete this task, which include but are not limited to the following:

- Work with the CCM and the PAC to develop the functional requirements for the Standards Compliance Data Repository,
- Work with the CCM and the PAC to develop and document software specifications for the Standards Compliance Data Repository that satisfy the functional requirements developed in this task,
- Complete software development consistent with the quality assurance standards developed in Task 4 to meet the software specifications developed in this task.

Deliverables:

- Functional Requirements for the Standards Compliance Data Repository
- Software Specifications for the Standards Compliance Data Repository
- Standards Compliance Data Repository
- Standards Compliance Data Repository Documentation

TASK 14 - CONTINGENCIES AND ADDITIONAL TOPIC AREAS

The Contractor shall provide technical expertise to conduct unexpected residential building energy related engineering and econometric analyses necessary to support the residential building science software tools specified in this SOW as they arise throughout the Agreement period.

Deliverables:

- Will be defined as needed through Work Authorizations

Tentative Deliverables List and Schedule:

Task #	DELIVERABLES	TENTATIVE DUE DATES
1	Monthly Progress Reports	Monthly throughout the Agreement
2	Draft List of PAC Members	Aug 2011
	Final List of PAC Members	Sep 2011
	Letters of acceptance, or other comparable documentation of commitment for each PAC Member	Sep 2011
3	Draft PAC Meeting Schedule	Aug 2011
	Final PAC Meeting Schedule	Sep 2011
	PAC Meeting Agenda(s) with Back-up Materials for Agenda Items	Ongoing
	Written PAC meeting summaries, including recommended resolution of major PAC issues	Ongoing
4	Residential Building Science Software Development Plan	Nov 2011
	Residential Building Science Software Quality Assurance Report Plan	Nov 2011
	Residential Building Science Software Development Report	Mar 2013
	Residential Building Science Software Licensing Report	Mar 2013
5	2013 Residential Standards ACM Reference Method Functional Requirements	Nov 2011
	2013 Residential Standards ACM Reference Method Software Specifications	Dec 2011
	2013 Residential Standards ACM Reference Method Software	Mar 2012
	2013 Residential Standards ACM Reference Method Software Documentation	Mar 2012
6	2013 Residential and Nonresidential Standards Compliance Form Generator Functional Requirements	Nov 2011
	2013 Residential and Nonresidential Standards Compliance Form Generator Software	Dec 2011

II. Scope of Work, continued

Task #	DELIVERABLES	TENTATIVE DUE DATES
	Specifications	
	2013 Residential and Nonresidential Standards Compliance Form Generator	Mar 2012
	2013 Residential Standards Compliance Form Generator Software Documentation	Mar 2012
	2013 Residential Standards Compliance Form Plug-in Functional Requirements	Dec 2011
	2013 Residential Standards Compliance Form Plug-in Software Specifications	Jan 2012
	2013 Residential Standards Compliance Forms Plug-in	Mar 2012
	2013 Residential Standards Compliance Forms Plug-in Software Documentation	Mar 2012
7	2013 Residential Standards ACM Compliance Engine Functional Requirements	Nov 2011
	2013 Residential Standards ACM Compliance Engine Software Specifications	Dec 2011
	2013 Residential Standards ACM Compliance Engine Plug-in	Mar 2012
	2013 Residential Standards ACM Compliance Engine Software Documentation	Mar 2012
	2013 Residential Standards ACM Compliance Engine Demonstration Software	Mar 2012
8	2013 Residential Standards ACM Compliance Engine Demonstration Plan	Mar 2012
	2013 Residential Standards Compliance Engine Demonstrations	Aug 2012
	2013 Residential Standards Compliance Engine Demonstration Task Report	Oct 2012
9	2013 Residential Standards Compliance Software Functional Requirements	Nov 2011
	2013 Residential Standards Compliance Software Specifications	Dec 2011
	2013 Residential Standards Compliance Software	Aug 2012
	2013 Residential Standards Compliance Software Documentation	Aug 2012

II. Scope of Work, continued

Task #	DELIVERABLES	TENTATIVE DUE DATES
10	2013 Residential Standards Simple Compliance Tool Functional Requirements	Nov 2011
	2013 Residential Standards Simple Compliance Tool Specifications	Dec 2011
	2013 Residential Standards Simple Compliance Tool	Aug 2012
	2013 Residential Standards Simple Compliance Tool Software Documentation	Aug 2012
11	Existing CECPV Model Validation Report	Nov 2011
	Modified CECPV Model Validation Report	Jan 2012
	Final CECPV Model	Mar 2012
	CECPV Software Functional Requirements	Mar 2012
	CECPV Software Specifications	Apr 2012
	CECPV Software	Sep 2012
	CECPV Software Documentation	Sep 2012
12	Functional Requirements for updates to the CUAC	Aug 2012
	Software Specifications for updates to the CUAC	Sep 2012
	Updated CUAC Software	Mar 2013
13	Functional Requirements for the Standards Compliance Data Repository	May 2012
	Software Specifications for the Standards Compliance Data Repository	Jun 2012
	Standards Compliance Data Repository	Aug 2012
	Standards Compliance Data Repository Documentation	Aug 2012
14	Contingencies and Additional Topic Areas	As directed by Commission Contract Manager

III. Qualifications Evaluation and Criteria

SELECTION PROCESS STEPS

The Energy Commission will organize a committee whose members have expertise in evaluation of architectural and engineering services. The Evaluation Committee will evaluate the SOQs as follows:

Fulfillment of RFQ Mandatory Format

The Contracts Office will first identify those Firms whose SOQs adhere to the mandatory format outlined in this RFQ. Firms who do not follow the mandatory format may be eliminated from the competition.

Evaluation of Qualifications

The Evaluation Committee will review and score all remaining SOQs based on the Evaluation Criteria in this RFQ. The preliminary technical score for each SOQ will be the average of the combined scores of all Evaluation Committee members.

Discussions

The Evaluation Committee shall conduct discussions during the Evaluation Process with no less than three Firms regarding qualifications and methods for furnishing the required services. Firms invited to participate in the Discussion will be scored by the Evaluation Committee on their response. The Evaluation Committee may use patterned questions and/or questions specific to an SOQ to conduct these discussions. The Evaluation Committee may provide the Firms with a copy of the questions and/or issues to be addressed and a format for structured discussions.

Firms should anticipate travel to the Energy Commission Headquarters for the discussions. At the discretion of the Contract Manager, discussions may be held via conference call or web-ex.

Upon completion of the discussions the Evaluation Committee may make adjustments to the preliminary scores and re-rank the Firms. From the Firms with which discussions are held, the Evaluation Committee shall select no less than three, in rank, based upon the established criteria, who are deemed to be the most highly qualified to provide the required services.

III. Qualifications Evaluation and Criteria

HOW THE SOQ WILL BE SCORED

The Evaluation Committee will award points for the technical criteria based on the following point scale.

POINT SCALE

0 Points	✓ The response is not in substantial accord with the RFQ requirements. ✓ Has a potential significant effect on the amount paid or net cost to the State or the quality or quantity of the product and/or service. ✓ Provides an advantage to one competitor over the other competitors. For example, not paying minimum wages.
1-3 Points	✓ The SOQ states a requirement, but offers no explanation of how or what will be accomplished. ✓ The response contains a technical deficiency which is an inaccurate statement or reference concerning the how, what, where, or when, which is part of an overall statement or description.
4-6 Points	✓ Satisfies the minimum requirements and describes generally how and/or what will be accomplished.
7-9 Points	✓ Response satisfies the minimum requirements and specifically describes how and/or what will be accomplished in an exemplary manner, using sample products and illustrative materials (i.e. diagrams, charts, graphs, etc.).
10 Points	✓ Exceeds the minimum requirements and specifically describes how and/or what will be accomplished in a superior manner, both quantitatively and qualitatively, using sample products and illustrative materials (i.e., diagrams, charts, graphs, etc.).

RANKING AN SOQ

After each SOQ is scored, it will be placed on a list, in rank order, with the highest scoring SOQ placed first and the remainder in descending order based on score.

PREFERENCE POINTS

A Firm may qualify for non-technical preference points such as Disabled Veteran Business Enterprises (DVBE) Incentive points. Each qualifying Firm passing the minimum technical evaluation will receive the applicable preference points.

Disabled Veteran Business Enterprise Incentive

The DVBE Incentive program was established pursuant to Military & Veterans Code Section 999.5(2) and Department of General Services' Regulations 2 CCR 1896.98 et.seq. The information in Attachment 3.1 explains how the incentive is applied and how much of an incentive will be given.

III. Qualifications Evaluation and Criteria

CRITERIA FOR EVALUATION

Criteria	Key Elements	Weight	Max Points	Point Total
1. Company / Team Organization	a. Team management structure b. Organization administrative structure c. Appropriate level and type of staffing d. Accessibility to the Energy Commission e. Approach to contract management f. Ability to effectively and efficiently recruit additional subcontractors in response to Commission direction	2	10	20
2. Experience and Qualifications	a. Professional registration in the State of California as a mechanical engineer, civil engineer, electrical engineer or an architect b. Professional engineering or architectural experience in residential building design and/or energy analysis c. Active participation in professional engineering and architectural trade associations (e.g. ASHRAE, AIA, USGBC) d. Specific knowledge and experience concerning each scope of work task e. Specific knowledge and experience concerning building energy modeling and building energy-related data exchange schemas f. Specific knowledge and experience concerning building energy-related software specification, development, testing and support g. Demonstrated ability to organize and manage a team of technical experts to effectively complete scope of work tasks and deliverables in a timely manner h. Efficiency and effectiveness of proposed approaches to address topic areas not anticipated by this RFQ	3.5	10	35

III. Qualifications Evaluation and Criteria

Criteria	Key Elements	Weight	Max Points	Point Total
3. Approach to Scope of Work and Methodology	a. Consistency with scope of work emphasis and priorities b. Thoroughness and clarity of proposal c. Demonstrated experience with similar tasks d. Demonstrated understanding of scope of work tasks e. Effectiveness of proposed approach to establish the Program Advisory Committee and use this group to plan and implement collaborative building energy modeling projects f. Appropriateness of proposed approach to plan for ongoing support of open source type building energy models and software g. Effectiveness of proposed approach to apply building science to the resolution of Standards issues that may arise in the completion of the SOW tasks h. Effectiveness of proposed approach to specifying, developing, testing and documenting building energy-related software applications i. Ability to effectively modify approach to work to respond to Commission work authorization direction	3.5	10	35
Customer References	Strength of customer references	.5	10	5
	PRELIMINARY TECHNICAL SCORE			
SOQ Discussions	Demonstrated knowledge of the issues Breadth, depth, and accuracy of the responses Clarity and succinctness of responses	.5	10	5
Maximum Technical Score				**100**
Minimum Passing Score (70 points)				
Disabled Veteran Business Enterprise Incentive				
FINAL ADJUSTED SCORE				

IV. SOQ Format, Required Documents and Delivery

About This Section

This section provides Firms with information about how to prepare a Statement of Qualifications (SOQ) in response to this RFQ. The format is prescribed to assist the Firm in meeting State requirements and to enable the Energy Commission to evaluate each SOQ uniformly and fairly. Firms must follow all SOQ format instructions, answer all questions, and supply all requested data.

Pricing/Rates Information

Do not submit any price quotes or bids in your SOQ since this will be negotiated with the top rated Firm.

Required Format

All SOQs submitted under this RFQ must be typed or printed using a standard 11-point font, singled-spaced and a blank line between paragraphs. Pages must be numbered and sections titled and printed back-to-back. Spiral or comb binding is preferred and tabs are encouraged. Binders are discouraged.

Number of Copies

Firms must submit the original and five (5) copies of the SOQ (Volume 1 and 2).

Firms must also submit electronic files of the qualifications on **CD-ROM diskette** along with the paper submittal. Electronic files must be in Microsoft Word XP (.doc format) and Excel Office Suite formats. Electronic files submitted via e-mail will not be accepted.

Packaging and Labeling

The original and copies of the SOQ must be labeled "Request for Qualifications, 400-10-402," and include the title of SOQ and the appropriate volume number:

IV. SOQ Format and Required Documents, continued

Include the following label information and deliver your SOQ, in a sealed package:

Person's Name, Phone # Firm's Name Street Address City, State, Zip Code FAX #
RFQ 400-10-402 Contracts Office, MS-18 California Energy Commission 1516 Ninth Street, 1st Floor Sacramento, California 95814

PREFERRED METHOD FOR DELIVERY

A Firm may deliver an SOQ by:

- U.S. Mail,
- in person, or
- messenger service.

SOQs must be delivered **no later than 3:00 p.m.**, to the Energy Commission's Contracts Office during normal business hours and prior to the date and time specified in this RFQ. Any SOQ received after the specified date and time are considered late and will not be accepted. Postmark dates of mailing, E-mail and facsimile (FAX) transmissions are not acceptable in whole or in part, under any circumstances.

ORGANIZE YOUR PROPOSAL AS FOLLOWS:

VOLUME 1, Administrative Response

Cover Letter	
Table of Contents	
Contractor Status Form	Attachment 1
Darfur Contracting Act Form	Attachment 2
Completed Disabled Veteran Business Enterprise Form	Attachment 3.3
Bidder Declaration Form GSPD-05-105	Attachment 3.4
Contractor Certification Clauses	Attachment 4

VOLUME 2, Technical Response

Approach to Tasks in Scope of Work
Contractor Qualifications

Cost Minimization
Project Team Organizational Structure
Project Team Relevant Experience and Qualifications
Client References Attachment 5

A. Approach to Tasks in Scope of Work

Describe the Firm's approach to providing services listed in the Scope of Work, highlighting outstanding features, qualifications, and experience.

B. Contractor's Qualifications

Contract Management and Administrative Qualifications
Describe the Firm's approach to contract management and administration of this Agreement. Identify the Contract Management team members. Describe where Contractor's office(s) are located and proposed methods of minimizing costs to the State. Describe where subcontractors are located and proposed methods of minimizing costs to the State.

Team Members and Relationship
Provide a short description of each firm and key members on the team. Describe the relationship between the Contractor and subcontractors on your team. Indicate any history of a working relationship between the team members noting any significant success stories.

Building Energy Modeling and Software Development Tools
Describe the software programming language(s), building energy simulation software, computational and data access platforms that will be used to accomplish the tasks listed in the Scope of Work.

C. Cost Minimization

Without revealing hourly rates or cost, describe the efforts that the Contractor will take to minimize costs to the Energy Commission in the successful performance of this Agreement. For example:

In-State Travel Costs

What policy will the Contractor adopt as related to team member time charges when the team member is traveling and/or not working actively on the Agreement?

Out of State Travel Costs
It is the Energy Commission's intent to reimburse contractors for airfare within California. If the Contractor and/or team members are located out of state, will the Contractor establish an office in California and/or initiate all travel and related time

charges from this California office, and not the out of state office? The Energy Commission is interested in reimbursing the Contractor for active time spent working on this Agreement, not travel.

D. Project Team Organizational Structure

1. Describe the organizational structure of the Bidder, including providing an organizational chart of the entire contract team.
2. Identify the location of the Bidder's and Subcontractor's headquarters and satellite office(s) and proposed methods of minimizing costs to the State.
3. Provide a short description of each firm and key members on the team. Describe the relationship between the Contractor and subcontractors on your team. Indicate any history of a working relationship between the team members noting any significant success stories
4. Describe professional awards.
5. Describe the organization, composition, and functions to be performed by staff members of the Bidder and any subcontractors and how the staff pertains to this contract.
6. Describe any technical capabilities that would facilitate communicating with the Energy Commission (e.g., internet capability and electronic reports).

E. Project Team Relevant Experience and Qualifications

1. Document the project team's qualifications as they apply to performing the tasks described in the Scope of Work. Describe the nature and scope of recently completed work as it relates to the Scope of Work.
2. Identify and list all Bidder staff and subcontractors (all team members) who will be committed to the tasks and describe their roles.
3. Describe job classification, relevant experience, education, academic degrees and professional licenses of these technical staff team members.
4. Provide a current resume for all team members listed.
5. Identify the percentage of time each team member will be available throughout the contract.
6. Describe their familiarity with the administration, management, and technical expertise in performing pertinent tasks identified in the Scope of Work.

F. Client References

Each bidder shall complete Client Reference Forms. Three client references are required for the Contractor and three for each subcontractor.

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V. RFQ Administrative Requirements

RFQ DEFINED

The competitive method used for this procurement of services is a RFQ. An SOQ submitted in response will be scored and ranked based on the criteria in this RFQ. Every SOQ must establish in writing the Firm's ability to perform the RFQ's tasks. The Energy Commission shall conduct discussions and then select the most qualified Firm. The Energy Commission will negotiate an Agreement with the selected Firm for compensation which the Energy Commission determines to be fair and reasonable.

DEFINITION OF KEY WORDS

Important definitions for this RFP are presented below:

Word/Term	Definition
State	State of California
DGS	Department of General Services
Energy Commission	California Energy Commission
RFQ	Request for Qualifications, this entire document
SOQ	Statement of Qualifications, formal written response to this document from contractor
Firm	Respondent to this RFQ
CCM	Commission Contract Manager
DVBE	Disabled Veteran Business Enterprises
WA	Work Authorization

COST OF DEVELOPING SOQ

The Firm is responsible for the cost of developing an SOQ and this cost cannot be charged to the State. The Firm is also responsible for any travel costs associated with participating in this RFQ.

PRINTING SERVICES

Per Management Memo 07-06, State Agencies must procure printing services through the Office of State Publishing (OSP). Firms shall not include printing services in their proposals.

V. RFQ Administrative Requirements, continued

CONFIDENTIAL INFORMATION

The Commission will not accept or retain any Proposals that are marked confidential in their entirety and Firms are strongly discouraged from requesting confidential treatment for any of the information contained in a submittal.

DARFUR CONTRACTING ACT OF 2008

Effective January 1, 2009, all solicitations must address the requirements of the Darfur Contracting Act of 2008 (Act). (Public Contract Code sections 10475, *et seq*.; Stats. 2008, Ch. 272). The Act was passed by the California Legislature and signed into law by the Governor to preclude State agencies generally from contracting with "scrutinized" companies that do business in the African nation of Sudan (of which the Darfur region is a part), for the reasons described in Public Contract Code section 10475.

A scrutinized company is a company doing business in Sudan as defined in Public Contract Code section 10476. Scrutinized companies are ineligible to, and cannot, bid on or submit a proposal for a contract with a State agency for goods or services. (Public Contract Code section 10477(a)).

Therefore, Public Contract Code section 10478 (a) requires a company that currently has (or within the previous three years has had) business activities or other operations outside of the United States to certify that it is not a "scrutinized" company when it submits a bid or proposal to a State agency. (See # 1 on Attachment 2)

A scrutinized company may still, however, submit a bid or proposal for a contract with a State agency for goods or services if the company first obtains permission from the Department of General Services (DGS) according to the criteria set forth in Public Contract Code section 10477(b). (See # 2 on Attachment 2)

DISABLED VETERAN BUSINESS ENTERPRISES (DVBE) COMPLIANCE REQUIREMENTS

The Disabled Veteran Business Enterprise (DVBE) Program has two inter-related aspects:

Participation Goals: This RFQ is subject to a mandatory participation goal of three percent (3%) certified California Disabled Veteran Business Enterprise (DVBE) as set forth in Public Contract Code Section 10115 et seq.

And,

Incentive: The DVBE Incentive Program gives a contractor an opportunity to improve their bid status based on the efforts attained from the DVBE Participation Program.

More information regarding DVBE is located in Attachments 3.1 and 3.2.

V. RFQ Administrative Requirements, continued

NOTICE OF SELECTION

Subsequent to the SOQ evaluations and the discussions with Firms, the Energy Commission will post a "Notice of Selection" at the Energy Commission's headquarters in Sacramento, and on the Commission's Web Site.

California Energy Commission
Contracts Office, MS-18
1516 Ninth Street
Sacramento, CA 95814

NEGOTIATIONS

Pursuant to Title 20, California Code of Regulations (CCR), section 2565 and Public Contract Code (PCC) 6106, within 14 days after posting the Notice of Selection, the Energy Commission will begin negotiations with the top ranked Firm for an acceptable fee (hourly rates). The top ranked Firm will be required to submit a list of rates after written notification of selection. If negotiations with the top ranked Firm fail, the Energy Commission will enter into negotiations with the next highest Firm, and so on.

NOTICE OF PROPOSED AWARD

Subsequent to the negotiations, the Energy Commission will post a "Notice of Proposed Award" at the Energy Commission's headquarters in Sacramento, and on the Commission's Web Site.

California Energy Commission
Contracts Office, MS-18
1516 Ninth Street
Sacramento, CA 95814

RFQ CANCELLATION AND AMENDMENTS

If it is in the State's best interests, the Energy Commission reserves the right to do any of the following:

- Cancel this RFQ,
- Amend this RFQ, or
- Reject any or all SOQs received in response to this RFQ

If the RFQ is amended, the Energy Commission will send an addendum to all parties who requested the RFQ and will also post it on the Energy Commission's Web Site: http://www.energy.ca.gov/contracts/index.html and Department of General Services' Web Site: http://www.bidsync.com/DPX?ac=powersearch&srchoid_override=307818.

V. RFQ Administrative Requirements, continued

ERRORS

If a Firm discovers any ambiguity, conflict, discrepancy, omission, or other error in the RFQ, the Firm shall immediately notify the Energy Commission of such error in writing and request modification or clarification of the document. Modifications or clarifications resulting from this notice will be posted on the Energy Commission's Web Site without divulging the source of the request for clarification. The Energy Commission shall not be responsible for failure to correct errors.

MODIFYING OR WITHDRAWAL OF AN SOQ

A Firm may, by letter to the Contact Person at the Energy Commission, withdraw or modify a submitted SOQ before the deadline to submit an SOQ. An SOQ cannot be changed after that date and time.

IMMATERIAL DEFECT

The Energy Commission may waive any immaterial defect or deviation contained in a Firm's SOQ. The Energy Commission's waiver shall in no way modify the SOQ or excuse the successful Firm from full compliance.

DISPOSITION OF FIRM'S DOCUMENTS

On the submission date, all SOQs and related material submitted in response to this RFQ become the property of the State. After the Notice of Proposed Award is posted, all SOQs and related materials become public records. In addition, all evaluation and scoring sheets become public records after the Notice of Proposed Award is posted. The original SOQ may be returned to a Firm upon written request at the expense of the Firm.

AGREEMENT REQUIREMENTS

The content of this RFQ shall be incorporated by reference into the final contract. See the sample Agreement terms and conditions included in this RFQ.

NO CONTRACT UNTIL SIGNED & APPROVED

No agreement between the Commission and the successful Firm is in effect until the contract is signed by the Contractor, approved at a Commission Business Meeting, and signed by the Energy Commission Contracts Manager.

CONFLICT OF INTEREST

Pursuant to 20 CCR 2569, Firms are prohibited from offering, soliciting, or accepting gifts, services, loans, rebates or payments of any kind (such as kickbacks) from any Energy Commission employee.

V. RFQ Administrative Requirements, continued

FIRMS' ADMONISHMENT

This RFQ contains the instructions governing the requirements for a firm quotation to be submitted by interested Firms, the format in which the technical information is to be submitted, the material to be included, the requirements which must be met to be eligible for consideration, and Firm responsibilities. Firms must take the responsibility to carefully read the entire RFQ, ask appropriate questions in a timely manner, submit all required responses in a complete manner by the required date and time, make sure that all procedures and requirements of the RFQ are followed and appropriately addressed, and carefully reread the entire RFQ before submitting a SOQ.

GROUNDS TO REJECT AN SOQ

An SOQ shall be rejected if:

- It is received after the exact time and date set for receipt of SOQs.
- It is considered nonresponsive to the California DVBE participation requirements.
- It is lacking a properly executed Contractor Certification Clause(s).
- It is lacking properly executed Darfur Contracting Act.
- It contains false or intentionally misleading statements or references which do not support an attribute or condition contended by the Firm.
- If the SOQ is intended to erroneously and fallaciously mislead the State in its evaluation of the SOQ and the attribute, condition, or capability is a requirement of this RFQ.
- There is a conflict of interest as stated in this RFQ.
- It contains confidential information.

An SOQ may be rejected if:

- It is not prepared in the mandatory format described.
- It is unsigned.
- It does not literally comply or contains caveats that conflict with the RFQ and the variation or deviation is not material, or it is otherwise nonresponsive.